

BEGIN

REEL #71  
BROZ, BELA  
to

ERÓZ, Péla

Stables on the Szolnok County state farms.  
Mezogazd techn 1 no.1:22-23 '61.

BROZ, Bela

Experimental buildings of state farms. Magy ep ipar 12 no.2:77-80  
'63.

Czechoslovakia

BROZ, F

Die Forschungsaufgaben auf dem Fachgebiet der Geodäsie und Kartographie  
(tschech.) S. 8-10

SO: Vermessungs Technik, Nov 1955, Unclassified.

BROZ, F.

The Czechoslovak SRZ-42 forage harvester.

p. 289 (SBORNIK RADA MECHANISACE A ELEKTRIFIKACE ZEMEDELSTVI) Vol. 30, No. 5, Oct.  
1957, Praha, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No.3,  
March 1958

LRCZ, F.

"The objectives and results of the activities of the Research Institute of Geodesy, Topography, and Cartography in Prague."

F. 47. Ustredni sprava geodesie a kartografie, (Prague, Czechoslovakia)  
Vol. 4, no. 2, Feb. 1958

SO: Monthly Index of East European Accession (MEAI) LC, Vol. 7, No. 5, May 1958

BROZ, F.

SCIENCE

Periodicals: GEODETICKY A KARTOGRAFICKY OBZOR. Vol. 5, no. 1, Jan. 1959

BROZ, F. Perpetuation of errors in gravimetric nets. p. 10.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 5,  
May 1959, Unclass.



BROZ, F.

SCIENCE

Periodicals: GEODETICKY A KARTOGRAFICKY OBZOR. Vol. 5, no. 2, Feb. 1959

BROZ, F. Perpetuation of errors in gravimetric nets. p. 10

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 5,  
May 1959, Unclass.

S/035/62/000/004/049/056  
A001/101

AUTHOR: Brož, F.

TITLE: On the problem of adjusting gravimetric networks

PERIODICAL: Referativnyy zhurnal, Astronomiya i Geodeziya, no. 4, 1962, 31, abstract 4G182 ("Sb. výzkumn. prací. Výzkumn. Ústav geodet., topograf. a kartograf.", 1959, v. 1, 11 - 39, Czech; Russian and German summaries)

TEXT: Adjustment of an extensive gravimetric network by the least-square method is connected with a labor-consuming solution of the system of many equations. Adjustment of such a network by the successive approximation method does not always lead to a single-valued solution and definite result. An exact solution calls for a large number of approximations. If initial approximate values were chosen unhappily, the number of approximations increases. In order to employ successfully the method of successive approximations, the author proposes to assume the results of preliminary adjustment of individual small parts of the network for initial approximate values, and considers as an example the approximation method for a typical network of a few triangles. Corrections to the

Card 1/2

On the problem of adjusting gravimetric networks

S/035/62/000/004/049/056  
A001/101

sides of the central triangle are expressed by a linear function of misclosures of remaining triangles of the network part being adjusted and serve as a basis for subsequent approximations. In this case calculations lead to a convergent sequence of corrections and yield an exact solution. The theory of the method is presented in the matrix formalism and illustrated by numerical examples. Several computers can participate simultaneously in adjustment. If the network shape remains unchanged with new observations, the partial solution program also does not change. The method proposed is applied to solution of a system of 162 normal equations in adjustment of a first-order Czechoslovak gravimetric network (RZhAstr, 1960, no. 1, 969). The accuracy of a unitary gravimetric connection is estimated by the mean square error of  $\pm 0.13$  mgal. It is noted that considerations of labor saving in adjustment calculation should be taken into account in designing the network. If observations are arranged in a certain way, a more advantageous form of normal equations can be obtained. In particular, in designing a network, it is advantageous to use such an observational program in which all connections can be assumed to be of equal accuracy. There are 6 references.

[Abstracter's note: Complete translation]

P. Shokin

Card 2/2

S/035/62/000/004/048/056  
A001/A101

AUTHOR: Brož, F.

TITLE: On the problem on accumulation of errors in gravimetric networks

PERIODICAL: Referativnyy zhurnal, Astronomiya i Geodeziya, no. 4, 1962, 31, abstract 4G181 ("Sb. výzkumn. prací. Výzkumn. Ústav geodet., topo-graf. a kartograf.", 1961, v. 6, no. 3, 7 - 32, Czech; Russian and German summaries)

TEXT: In connection with solution of the problem of reasonable designing large gravimetric networks; the author considers the problem of error accumulation in networks adjusted by the least-square method (Abstract 4G182). Using the formalism of matrix calculus the author presents the solution of a problem for  $n$  points of a gravimetric network schematically represented by a chain of triangles and a chain of squares in which gravity differences are measured for all the sides. He derives the weight of the function of the gravity balanced value at the terminal point of the chain. It turned out that construction of a network of  $2n$  squares was more economical, by 25%, than that of  $2n$  triangles. The loss in

Card 1/2

On the problem on accumulation of...

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A001/A101

accuracy in this case amounts to  $\sim 12\%$  which, in the author's opinion, has no practical meaning. Having in consideration only economical aspect of the problem and neglecting the accuracy loss, the author proposes to construct chains and compact gravimetric networks out of squares rather than out of triangles. There are 5 references. ✓

P. Shokin

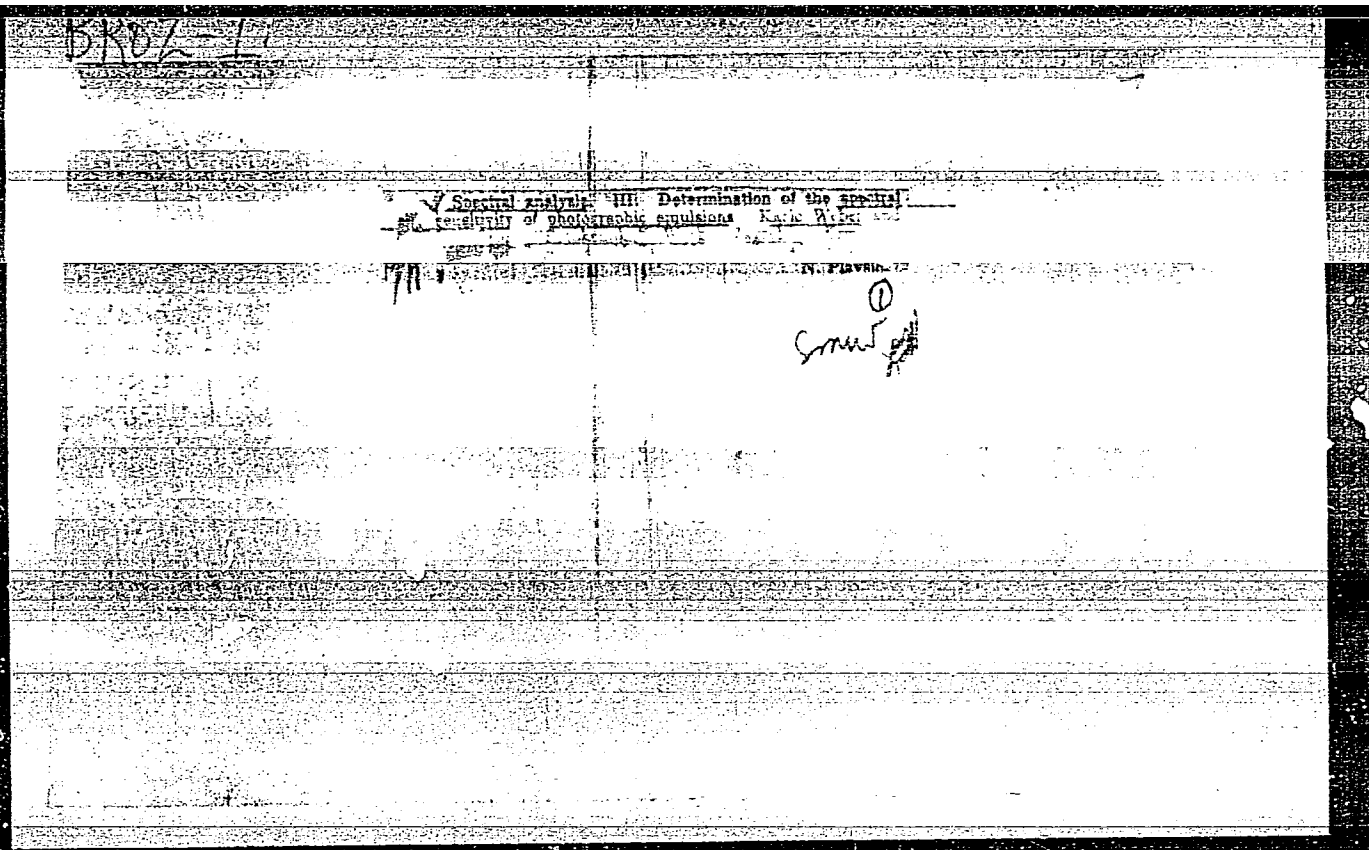
[Abstracter's note: Complete translation]

Card 2/2

EROZ, I.

"Determination of the granular grade of photographic layers", p. 29 (Arhiv Za Kemiju.,  
Vol. 24, 1952, Zagreb)

SO: Monthly List of ~~Russian~~ <sup>East European</sup> Accessions, Vol. 2, No. 9, Library of Congress, September 1953, Uncl.



BROZ, I.

"A study of some factors having influence on the adsorption of Gelatin on the superficies of the crystal of silver halogenide" by J.Pouradier and J.Roman. Reviewed by I.Broz. Kem ind 9 no.12: F-91--F-94 D '60.

1. Urednik, "Fotokemijska industrija."



BROZ, Ivo; WEBER, Karl

Use of the EFKE 25 Pan film in the professional and scientific work. Kem ind 12 no.8:591-596 '63.

1. "Fotokemika", Zagreb.

BROZ, I.

First International Congress on Reprography. Kem ind 12 no.  
11: 857-858 N '63.

BROZ, J.

Electrical Engineering abstracts  
June 1951  
Engineering

620.179.14 : 621.318  
2258. Detecting tube failures by a magnetic method.  
J. Broz, M. Marek and F. Vilm. *Elektrotech.*  
(Prague), 42, No. 5, 244-8 (1951) in Czech.

The method which is based upon the determination  
of the leakage flux above failures in steel tubes,  
reveals failures due to structural faults in the material  
as well as those due to wall thinners. A.

## CZECH

✓ Preparation of pure iron and the evaluation of its purity according to some physical properties. Jan Brdický, Jaromír Bral, Karel Smrčák, and Zdeněk Trounč (Inst. Tech. Brno, Czech. J. Phys. 4, 345-9(1954) (In English).—Fe contg. less than 0.01% of impurity was prepd. by electrolysis of  $\text{FeCl}_2$  solns. and by reduction of  $\text{Fe}_2\text{O}_3$ , and refining of the material with moist  $\text{H}_2$  at  $850^\circ$  for 3 hrs. The sp. gr. of one of the samples was  $7.874 \pm 0.001$  g./cc., the same as that found by Cleaves and Hiegel (C.A. 36, 4455). The purity attained appears satisfactory for magnetic applications. Manfred Mannheimer

BROZ, J.

"Measurement of the Magnetic Properties of Ferromagnetic Monocrystals" P. 92  
( CESKOSLOVENSKY CASOPIS PRO FYSIKU - Vol. 4, No. 1, Feb. 1954 - Praha, Czech. )

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 4,  
April 1955, Uncl.

Brož, J.

CZECH

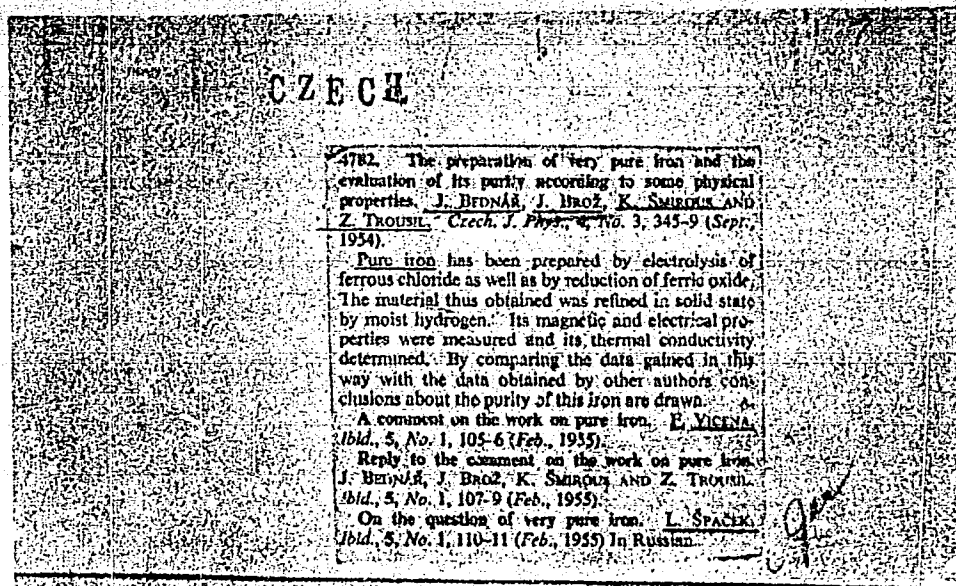
538.082/083

7547. The adaptation of the pendulum magnetometer to the measurement of thin ferromagnetic layers. J. Brož. Letter in Czech. J. Phys., 4, 96 (Feb., 1954).

It is suggested that the force on a thin sheet of the material in an inhomogeneous field can be measured by the use of a torsion fibre if it is converted into a couple by placing the sample on the end of a rod suspended from the fibre. Calculations show that measurable deflections can be obtained for sheets as thin as  $10^{-3}$  cm.

J. M. HUGH

Broz, J.



BROZ, J.

Broz, J., Sternberk, J. Torsion method of measuring magnetization curves of thin ferromagnetic films. p. 476. CESKOSLOVENSKY CASOPIS PRO FYSIKU. Praha. Vol. 4, no. 4, Sept. 1954.

SO: Monthly List of East European Accessions, (ZEAL), LC, Vol. 4, No. 11, Nov. 1955, Uncl.



BROZ, J.

Broz, J. A visit to Poland. p. 619. CENEKOSLOVENSKY CASOPIS PRO FYZIKU.  
Praha. Vol. 4, no. 5, Oct. 1954.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 11,  
Nov. 1955, Uncl.

15812

✓ The structure of thin iron films deposited by evaporation in vacuum. Jaromír Brož, Vladimír Synček, and Vladimír Havel. *Czechoslovak Phys. J.* 5, 547-54 (1965). — Thin Fe films 3150-2340 Å thick deposited on a glass plate were studied by electron diffraction. The films have a fibrous texture and are body-centered cubic with a const. lattice corresponding to compact Fe. The (111) plane is perpendicular to the surface of the plate. M. Charmandarian.

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②

MA

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538,247  
195. THE INFLUENCE OF DEMAGNETIZATION METHOD  
ON THE PERMEABILITY OF IRON. J. Brož and J. Sternba.  
Czech. J. Phys., Vol. 5, No. 3, 425-8 (Aug., 1955). In  
Russian.

It is sometimes thought that all methods of demagnetizing a specimen of iron,  $\sigma$ ,  $H$ , are equivalent. The authors' experiments, however, on Armco and other types of iron, show that specimens demagnetized by an alternating magnetic field possess thereafter higher permeability than the same specimens demagnetized by heating above the Curie point and slowly cooling to room temperature. Further, the higher the frequency of the alternating demagnetizing field, the higher the subsequent values of  $\Delta$ , plotted against  $H$  for the specimens when remagnetized. An explanation is put forward in terms of magnetic textures quoted in Vonsovskii and Eshel's "Ferromagnetism".

C.R.S. Manders

RAW



BROZ, JAROMIR

Category : CZECHOSLOVAKIA/Solid State Physics - Structural Crystallography E-3

Abs Jour : Ref Zhur - Fizika, No 2, 1957 No 3715

Author : Broz, Jaromir; Synecek, Vladimir; Havel, Vladimir

Title : Structure of Thin Layers of Iron. Obtained by Evaporation in Vacuum

Orig Pub : Chekosl. fiz. zh., 1955, 5, No 4, 547-548

Abstract : See Ref. Zh. Fiz., 1956, 28595

Card : 1/1

*BROZ JAROMIR*  
CZECHOSLOVAKIA/Electricity - Semiconductors

G-3

Abs Jour : Referat Zhur - Fizika, No 5, 1957, 12192

Author : Broz Jaromir

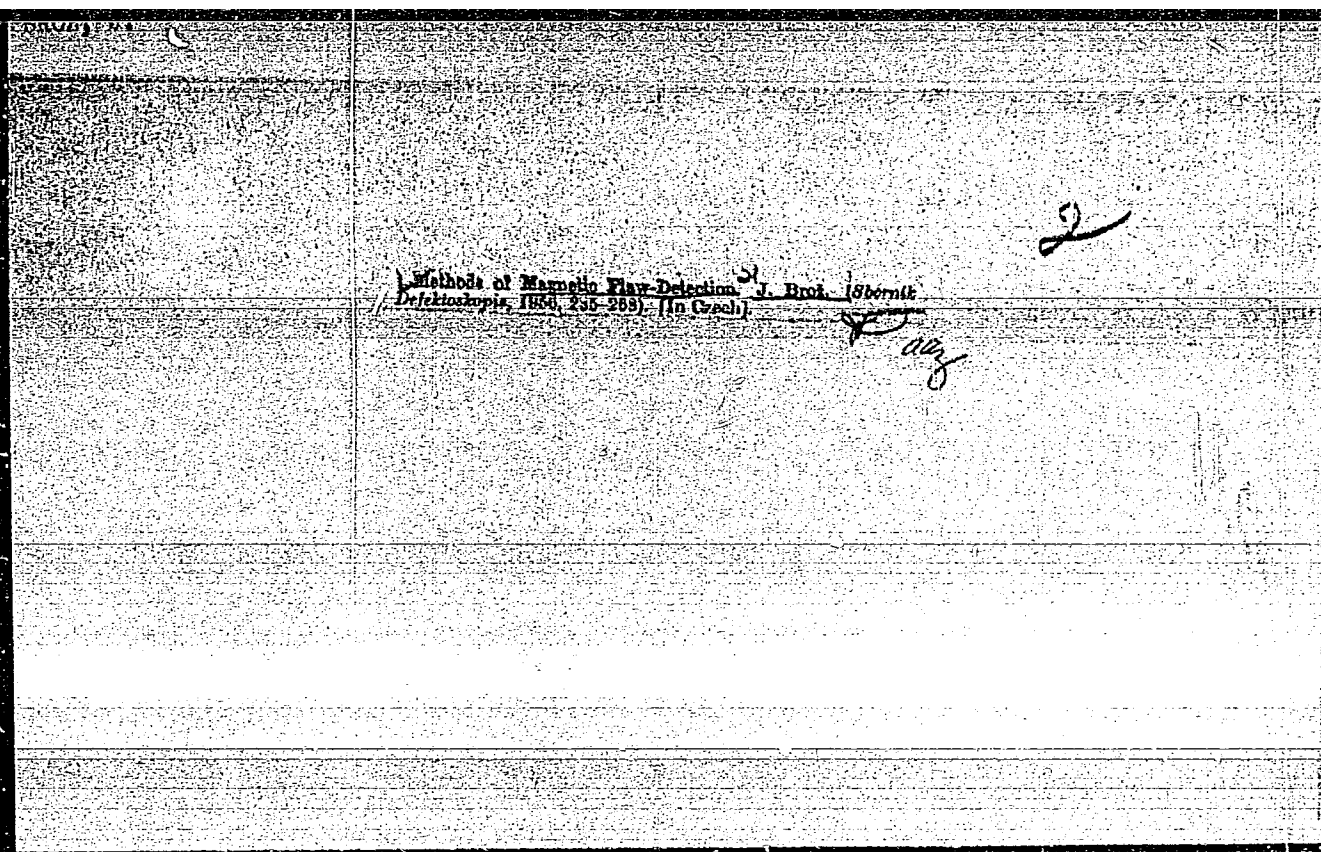
Inst : Technical Physics Department, Czechoslovak Academy of Sciences, Prague, Czechoslovakia.

Title : Study of the Electric Conductivity of Manganese Ferrite.

Orig Pub : Ceshosl. casop. fys., 1956, 6, No 3, 296-302

Abstract : An investigation was made of the electric conductivity of manganese-zinc ferrite as a function of the temperature and of the external electric field. It is shown, that the change in the resistance with an external electric field begins at field values that are several times smaller than those which were previously indicated in the literature. It is established, that the change in the resistance, due to the increased voltage, cannot be explained by heating

Card 1/3



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3, (4E2c)

637.311.32

1955 A STUDY OF THE ELECTRICAL CONDUCTIVITY OF  
MANGANESE-ZINC FERRITE / J. Brod

Czech J. Phys., Vol. 5, No. 4, Springfield, 1956. In Russian

The electrical conductivity of manganese zinc ferrite with approximate composition  $Mn_{0.4}Zn_{0.6}Fe_{1.0}O_4$  is studied as a function of temperature and external electric field. The dependence of the electrical conductivity of ferrites on the external electric field can be connected with the existence of surface layers on the individual crystal grains. According to this concept the sintered ferrite sample is composed of grains having a fairly high electrical conductivity which are divided from one another by surface layers the conductivity of which is very low. The correctness of this model is borne out by the measurements of the electrical resistance, or dielectric constant, at various frequencies, carried out by a number of authors on various ferrites or on other, similar, materials. The influence of the electric voltage on the conductivity of ferrites has not yet been studied explicitly. It has been found earlier that with small voltages one's law remains valid; at higher voltages the change in conductivity is explained as a result of the sample being heated by the current flowing in it. The results of the measurements show that the change in resistance with the external electric field takes place at very small voltages. By a simple experiment in which two different voltages were alternately applied at small equal time intervals it was found that the change in resistance produced by increasing the voltage cannot, for the ferrite studied, be ascribed to the heating of the sample. The result of measuring the dependence of the electrical conductivity of manganese zinc ferrite on the temperature is shown as the logarithm of the conductivity as a function of the reciprocal temperature. It is seen that for low and medium temperatures this dependence is linear and can be expressed with

1/2



Brož, J.

sufficient accuracy in each of these temperature ranges by the exponential relationship  $\sigma(T) = A \exp(-u/2kT)$ . The break in the linear course occurring around room temperature is accompanied by a considerable increase in the constant  $A$  while the value of the activation energy  $u$  increases much less.

3, (4E20)

2/2

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BROZ, J.

CZECHOSLOVAKIA / Magnetism. Ferromagnetism.

F-4

Abs Jour : Ref Zhur - Fizika, No 3, 1957, 6859

Author : Bednar, Jan; Broz, Jaromir; Smirous, Karel; Trousil,  
Zdenek

Title : Response to Spacek's Remark.

Orig Pub : Ceskosl. casop. fys., 1956, 6, No 2, 228 - 230

Abstract : See Abstract 6858

Card : 1/1

21

The electrical conductivity of manganese-zinc ferrite. Jarmic Brok (Czechoslov. Acad. Sci., Prague). Czechoslov. J. Phys. 5, 821-9 (1956) (in Russian). — B. measures the elec. cond. of a ferrite with the approx. compn.  $Mn_{0.4}Zn_{0.6}Fe_{1.0}O_4$  as a function of temp. and elec. field. It is found, in agreement with other researchers (Koops, C.A. 45, 8310f), that the single grains have a fairly high bulk cond., but that the grains are sepd. by surface layers of low cond. The temp. dependence of the elec. cond. below room temp. can be expressed by  $\sigma(T) = A \exp(-s/2kT)$ .  $A$  increases strongly with temp., while the activation energy  $s$  is less variable. A max. of  $\sigma(T)$  is observed at 207°. Elec. resist. and decreases with increasing voltage, and can be described in the temp. interval -173° to 97° by  $\rho_V = \rho_0 \exp(-sV)$  where  $\rho_V$  is the resistance at voltage  $V$ , and  $\rho_0$  at  $V = 0$ ; the value of  $s$  depends only on temp. The change of the activation energy  $s$  and the const.  $A$  with voltage can be approximated at low temps. by  $s = s_0 \log(A) + s_1$ , where  $s_0$  and  $s_1$  are const. This result is a generalization of the Meyer-Neldel law (C.A. 33, 2419) for semiconductors.

4832  
4832

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A. Kremheller

BROZ, J. and others.

Effect of the method of preparation on some magnetic properties of manganese zinc ferrite. p. 46. (Ceskoslovensky Casopis Pro Fysiku. Vestnik. Vol. 7, no. 1, 1957.)

SO: Monthly List of East European Accession (EEAL) LC, Vol. 6, no. 7, July 1957. Uncl.

BROZ, J.

Contribution to the study on thermal dependence of saturated magnetization  
in manganese zinc ferrities.

p. 217

(Ceskoslovenska Morfologie. Vol. 5, no. 4, 1957, Praha, Czechoslovakia)

Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 2,  
February 1958

Distr: 1/31d/1/31d

Effect of the method of preparation on some magnetic properties of a manganese zinc ferrite. I. Rind, A. Herrmann, G. Knapick, J. Vintura and K. Závada. Czechoslov. J. Phys. 7, 68-78 (1957) (in German with Russian abstr.); cf. Bol'shova and Elkina, C.A. 52, 2432f. — Extensive measurements (magnetic, chem., and phys.) on carefully prepd. samples of a Zn-Mn ferrite (5) compn.  $2\text{Fe}_2\text{O}_3 \cdot \text{ZnO} \cdot 3\text{Mn}_2\text{O}_3$  ( $x$  varies from 1.063 to 1.275). The lattice const. varies from 8.440 to 8.472 kX. The method of prepn. varies as to degree and length of heating, either in air or in vacuum, and with or without N. On the basis of the magnetic tests, ferrites are divided into 3 classes, and these 3 classes can be correlated with the chem. properties. The magnetic properties given for these 12 samples are: Curie temp., satn. magnetization, effective Landé factor (calcd. by Kittell's formula for magnetic resonance absorption), width of the resonance line. The peculiarities seem clearly to be related to the varying valence of the manganese oxides present: from  $\text{MnO}$ , through  $\text{Mn}_2\text{O}_3$  and  $\text{Mn}_3\text{O}_4$  to  $\text{MnO}_2$  ions.

V. H. Gottschalk

CZECHOSLOVAKIA/Magnetism - Ferrites and Ferrimagnetism.

Abs Jour : Ref Zhur -Fizika, No 6, 1959, 13243

Author : Broz, Jaromir; Zaveta, Karel

Inst : -

Title : Concerning the Problem of the Study of the Temperature  
Dependence of Saturation Magnetization of Manganese-  
Zinc Ferrites.

Orig Pub : Ceskosl. casop. fys., 1957, 7, No 2, 217-219

Abstract : See Referat Zhur Fizika, 1958, No 1, 1174.

Card 1/1

CZECH/37-59-2-2/20

AUTHORS: Jaromír Brož, Svatopluk Krupička, Bohumil Zitka

TITLE: The Perminvar Effect and Magnetic After-effect in  
Magnesium Manganese Ferrite

PERIODICAL: Československý Časopis Pro Fysiku, 1959, Nr 2,  
pp 124-132 (+ 1 plate)

ABSTRACT: Some ferro-magnetic materials show a hysteresis curve with a characteristically narrow central part. The permeability of these materials in weak fields is practically independent of the field. These materials are called "Perminvars" (Ref 1). The theory of the perminvar effect has been studied by Kienlin (Ref 2). A stable perminvar effect can only be observed if the demagnetisation is carried out at a temperature sufficient for diffusion processes to occur rapidly and, thereafter, the material is cooked so that the stabilised state "freezes in". The diffusion processes leading to the stabilisation of the demagnetised state also lead to magnetic after-effects of the Richter type (Refs 4, 5). A connection between the two effects has been experimentally determined for  $\alpha$ -iron (Refs 6, 7) and for some ferrites (Refs 8,9,10). In the present work we have

Card 1/1+



CZECH/37-59-2-2/20

The Perminvar Effect and Magnetic After-effect in Magnesium  
Manganese Ferrite

investigated some of the conditions for the existence of the perminvar effect and its connections with relaxation effects. We have used a ferrite of composition  $Mg_{0.75}Mn_{0.35}Fe_{1.80}O_4$ . The theory of magnetic after-effects has been worked out by Néel for  $\alpha$ -iron containing some interstitials (mainly carbon). Although in the case of ferrites, no exact model of the diffusion processes is known, the general results of Néel's theory can, nevertheless, be used. Let us assume (Ref 7) that the behaviour of the sample in a magnetic field can be described on the basis of the motion of a single effective Bloch-wall. This is equivalent to assuming that each wall moves under the action of a mean magnetic field depending on the mean magnetic induction of the sample "B". The mean effective field of the magnetic after-effect can then be written as:

$$h(t, B) = h_{\infty}(B) G(t) \quad (8)$$

Card  
2/4

If we determine the value of the effective field  $h(t)$  from the perminvar effect according to Eq (9), for two stabilising times  $t_0, t$ , we obtain Eq (12):

CZECH/37-59-2-2/20

The Perminvar Effect and Magnetic After-effect in Magnesium  
Manganese Ferrite

$$h(t) - h(t_0) = \frac{h_{\infty}(B)}{1/\chi_{\infty} - 1/\chi_0} (1/\chi(t) - 1/\chi(t_0)). \quad (12)$$

The measurements were taken at a temperature of -195 °C. The time-dependence of the permeability was measured with a field intensity of 10 mOe and at a frequency of 200 kc/s. The hysteresis curve was determined by normal oscillographic methods with a magnetic field of amplitude  $H_m$  and frequency 50 c/s. Our experiments have shown that the perminvar effect is observed if the sample is demagnetised after cooling to liquid nitrogen temperature and after a certain time, necessary for the stabilisation of the demagnetised state, the magnetising field is applied. The observed effect was not stable. The instability was independent of the speed of cooling the sample. If, on the other hand, the sample was demagnetised at room temperature and afterwards cooled to liquid nitrogen temperature, a weak perminvar effect occurred if the cooling was slow, while it was not observed if the sample was cooled rapidly. The optimum field for observing the effect was 0.60 Oe and this was used for

Card 3/4

The Perminvar Effect and Magnetic After-effect in Magnesium  
Manganese Ferrite

CZECH/37-59-2-2/20

subsequent measurements. The change in the perminvar effect with the stabilising time  $t$  is shown in Fig 4B (plate, p 222a). Fig 4C shows the dependence of the effect on the duration  $\nu$  of the magnetising field. From these measurements, the magnitudes  $H_p$  and  $h$  (see Eq (9) and Fig 3) were determined.  $h$  is shown in Fig 5 as a function of  $t$  and  $\nu$ . This figure also shows the decrease of the permeability after demagnetisation. All these curves show similar characteristics. There are 7 figures and 14 references, of which 6 are English, 1 Czech, 4 German and 3 French.

Card 4/4

ASSOCIATION: Ústav technické fyziky ČSAV, Praha  
(Institute Tech. Phys., Ac. Sc., Prague)

SUBMITTED: August 7, 1958

AUTHOR: Jaromír Brož, and Jiří Šternberk CZECH/37-59-4-14/16  
 TITLE: Letter to the Editor: On the Temperature Dependence of  
 the Coefficients of Rectangularity of Manganese-Magnesium  
Ferrites 1<sup>1</sup>  
 PERIODICAL: Československý Časopis Pro Fysiku, 1959, Nr 4,  
 pp 445-446

ABSTRACT: The coefficient of rectangularity is defined either by  
 the relative remanence  $k = B_r/B_{max}$  or by the ratio  $R_s$   
 of the induction in half the negative field to the  
 induction in the maximum field. Wijn and co-workers  
 (Ref 1) have studied the dependence of the coefficient  
 of rectangularity on temperature within a small range.  
 Our aim was to study this dependence over a larger range.  
 We have chosen three ferrites whose chemical structure  
 is given in the figure caption. The maximum field used  
 was 35 Oe. The results of our measurements of  $R_s$  max  
 and  $k$  are shown in the figure. It is obvious that  
 the temperature dependence of the two coefficients of  
 rectangularity differs considerably. The coefficient  $k$   
 slowly and monotonously rises with decreasing temperature  
 in all samples. The coefficient  $R_s$  max basically

Card  
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CZECH/37-59-4-14/16

Letter to the Editor: On the Temperature Dependence of the  
Coefficients of Rectangularity of Manganese-Magnesium Ferrites

decreases with temperature, but shows definite minima in  
two of the three samples. We have attempted to explain  
these curves from the magnetic crystalline anisotropy.

The anomalies in the temperature dependence of  $R_s \max$   
cannot be explained from the behaviour of the  
other basic parameters of the magnetisation curve. ✓

Card  
2/2

It will, therefore, be necessary to make a more detailed  
study of the hysteresis curve in the second quadrant  
(Ref 2).

There are 1 figure and 2 German references.

ASSOCIATION: Ústav technické fyziky ČSAV, Praha (Institute of  
Tech. Physics, Academy of Science, Prague)

SUBMITTED: February 19, 1959

BROZ, J.: DRUPICKA, S.: ZITKA, B.

Perminvar effect and magnetic aftereffect in magnesium manganese ferrite.  
p. 124.

Praha, Czechoslovakia. Vol. 9, no. 2, 1959.

Monthly List of East European Accessions (EEAI), LC, Vol. 9, no. 2,  
Feb. 1960.

Uncl.

65974

24.2200

Z/037/60/000/02/003/018

AUTHORS: Brož, Jaromír and Kratochvílová, Eva<sup>EO24/E320</sup>

TITLE: Measurement of Magnetization with the Aid of a Physical Pendulum

PERIODICAL: Československý časopis pro fysiku, 1960, Nr 2, pp 102 - 106

ABSTRACT: The method (a modification of that described by Rathenau and Snoek, Ref 1) is suitable for measurements up to 600 °C. The equations of motion of a pendulum with a ferromagnetic sample moving in an inhomogeneous magnetic field is given by Eq (1), where M is the mass of the sample-holder, etc., J the moment of inertia, F the product of the field gradient and the sample's magnetic moment, s the distance of the centre of gravity from the axis, l the distance of the sample from the axis and m the mass of the sample. If  $x = l \varphi$ ,  $m \ll M$  and  $dH/dx = cx$ , it follows that:

$$I = \frac{Mgs}{vcl^2} \left[ \left( \frac{t}{t_0} \right)^2 - 1 \right]$$

(4)

Card1/4

65974

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Measurement of Magnetization with the Aid of a Physical Pendulum

where  $t_0$  is the pendulum's period in the absence of a magnetic field,  $t$  the period in the presence of a magnetic field,  $I$  the sample's magnetization intensity and  $v$  the volume of the sample. The main part of the equipment (Figure 1) is the Y-shaped pendulum made from thin glass tubes. The motion of the pendulum is restricted to a plane perpendicular to the direction of the magnetic field. The position of the pendulum's axis can be adjusted so that the sample intersects the axis of the pole-pieces midway between them. The sample can oscillate in a small electric furnace located between the pole pieces. The magnetic field is produced by an electromagnet with hemispherical pole pieces (3.5 cm radius) whose separation is adjustable;  $H$  was measured by a ballistic method and was found to vary as Eq (5); here  $H_0$  is a constant,  $a$  and  $b$  depend on the separation of the pole pieces and the magnetizing current. Figure 2 also shows  $dH/dx$ .

Card2/4



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E024/E320

Measurement of Magnetization with the Aid of a Physical Pendulum

Because the amplitude of the oscillation was less than 0.2 cm, Eq (3) applied with  $c = -2a = -4450 \text{ Oecm}^{-2}$ . With 2.12 cm between the pole pieces,  $M = 46.03 \text{ g}$ ,  $s = 15.95 \text{ cm}$ ,  $l = 61.3 \text{ cm}$ , one obtains (Eq 4):

$$k = \frac{Mgs}{vol^2} = 0.0431 \text{ abs.un. cm}^3. \text{ By comparing}$$

measurements of the magnetization of various saturated ferrites at room temperature with measurements obtained by the ballistic method, the validity of Eq (4) was confirmed (see Figure 3 comparing  $I_s$  (pend) with  $I_s$  (bal).)

The temperature dependence has been measured of the saturated magnetization of various ferrites. Figure 4 shows this dependence for  $Mn_{1.15}Fe_{1.85}O_4$ . The points marked by circles were obtained by the ballistic method, while those marked by crosses by the pendulum method. At room temperature, the values coincide and both curves join smoothly together.

Card3/4

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Z/037/60/000/02/003/018

EO24/E320

Measurement of Magnetization with the Aid of a Physical Pendulum

The samples may be quite small (  $v$  approx  $5 \times 10^{-5}$  to  $5 \times 10^{-3} \text{ cm}^3$  ).

The accuracy of the method depends on the accuracy with which  $t$  is determined. In the authors' case, this was done electronically with an accuracy of 0.01 sec. One may expect to determine the magnetization intensity with an accuracy of 1%. There are 4 figures and 2 references, of which 1 is English and 1 Czech.

ASSOCIATION: Ústav technické fyziky ČSAV, Praha (Institute of Technical Physics, Prague)

SUBMITTED: August 17, 1959

Card 4/4

Distr:  $4E25(m)$

The distribution of ions and their valencies in magnesium manganese ferrites. J. Brůž (Czech. Acad. Sci., Prague). *Czechoslov. J. Phys.* 10, 428-38 (1960) (in English).—B. proposes a model of the distribution of cations and valencies in nonstoichiometric Mg Mn ferrites; its validity is verified by measuring the satn. magnetic moments. The results of measuring the moment in stoichiometric ferrites to a certain extent also confirm the correctness of the proposed model for this type of Mg Mn ferrites. The close connection between the distribution coeff. for Mn ions, this coeff., and the av. valency of the Mn is pointed out. The dependence of the distribution coeff. of Mg ions on the compn. is calcd. by introducing the max. values of this coeff. and assuming that a simple proportionality holds for all compns. between the actual value of this coeff. and its max. value.

A. Kremheller

27 3  
MSC (50)  
1

S/282/63/000/002/001/005  
A059/A126

AUTHOR: Brož, Jaroslav

TITLE: A centrifuge for the separation of suspensions

PERIODICAL: Referativnyy zhurnal, otdel'nyy vypusk, 47. Khimicheskoye i kholodil'noye mashinostroyeniye, no. 2, 1963, 18, abstract 2.47.104 P (Czech. pat., cl. 82b, 3/20, no. 101121, September 15, 1961)

TEXT: The centrifuge (C) suggested has two plate-like parts, A and B (see Figure). Part B is rotated by an electric motor through a joint and the hollow shaft of C. This part can be displaced with the aid of the device E (load, spring) in the axial direction, and is pressed to part A. C is connected with the container L through the pipe K, through which the suspension is fed to the space enclosed by parts A and B. The required level of the suspension is maintained with a ball valve. By the action of the centrifugal force, the solid particles accumulate between the plate-like parts A and B. Purified water is supplied through the hollow shaft of C and the opening H to the container G, from where it is taken off. At a predetermined thickening of the deposit, part C

Card 1/2

A centrifuge for the separation of suspensions

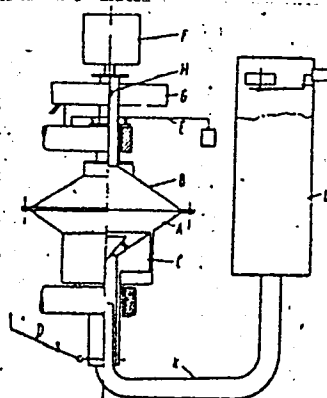
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A059/A126

is raised with the aid of equipment D which receives a pulse from the amount of the suspension which had passed the pipe K. The internal space is closed and part B is raised. The deposit is thrown out through the opening forming between parts A and B. After removal of the deposit, part C is lowered, and the cycle repeated. There is 1. figure.

[Abstracter's note: Complete translation]

Figure.

I. Gvozdev



Card 2/2

1002, 1111

✓ Neurological complications in the treatment of pulmonary tuberculosis patients with isonicotinoyl hydrazide. Oldřich Petrovický and Jiří Brož (Neurol. klin. lékařské hyg. fak., Prague). *Časopis Lékařů Českých* 93, 76-8(1956).—From 60 patients treated with isonicotinoyl hydrazide (I) (total doses ranging from 10 to 24 g.) for pulmonary tuberculosis subjective complaints or objective neurological signs were

Med 2

found in 48%. Of the most frequent occurrence were paraesthesia of the lower limbs (10%), generally raised nervous irritability (15%) and polyneuritis of the lower limbs (18%). The toxic action of I is reviewed and the simultaneous administration of the vitamins of the B-group stressed. A. Ženíšek

BROZ, J.

Cooling technics in medicine. Cesk. fysiolo. 7 no.4:334-335 July 58.

1. Vyskumny ustav stroju chladirenskych a potravinarskych, Praha.  
(REFRIGERATION,  
in med. (Cz))

CZECHOSLOVAKIA / Pharmacology and Toxicology. Tranquilizers. V-2

Abs Jour : Ref Zhur - Biol., No 16, 1958, No 75715

Author : BROZ, Jiri

Inst : Not given

Title : Liver Complications During Treatment with Chlorpromazine.

Orig Pub : Prakt. lekar, 1958, 38, N. 4, 170-171

Abstract : No abstract given.

Card 1/1



Cham B  
BROZ, J.

13

Brož, Josef: Receptář chemicko-technický. 2nd ed  
Prague: I. Šeboda. 1947.

1957

BR02. J.

4  
The perlinvar effect and magnetic after-effect in magne-  
sium manganese ferrite. Jaromir Broz, Svatopluk Kr-  
picka, and Bohumil Zilka (Czech Acad. Sci., Prague).  
Czechoslov. J. Phys. 9, 314-26 (1959) (in English); cf. Buz,  
C.A. 52, 10689f. — An unstable perlinvar effect is found in  
Mg-Mn ferrite at a temp. of  $-195^{\circ}$ . Its connection with  
the magnetic after-effect is investigated. The analysis  
carried out on the basis of Néel theory shows that both effects  
are a result of the same diffusion process. The exptl. re-  
sults also show that  $180^{\circ}$  Bloch walls are displaced when the  
sample is magnetized.

A. Kremheller

9RT

RM2

CZECHOSLOVAKIA

BROZ, Karel, Engr [affiliation not given].

"Summer Weather Conditions in Prague"

Prague, Zdravotni Technika a Vzduchotechnika, Vol 6, No 5, 1963, pp 208-212.

Abstract [Author's German summary, modified]: Presented is an analysis of weather observations made in Prague during the past ten years. The author evaluates the frequency of extreme summer temperatures, enthalpies, and vapor pressures in the atmosphere, and uses the result to classify the air-conditioning equipment into three groups with extreme parameters for calculation purposes.

1/1

NEUZIL, L; BROZ, L.

Storage bin and measuring apparatus of sticky granular materials.  
Chem prum 14 no.6:321-322 Je '64.

1. Higher School of Chemical Technology, Prague.

CZECH

8109\* High Gas Pressure Blast Furnaces. Provoz vysokých pecí so zvýšeným tlakem plynu. (Czech.) Ludvik Brož. Hutnické Listy, v. 10, no. 2, Feb. 1955, p. 67-73.  
Pressure losses; thermal efficiency; gas distribution; quality of pig iron produced. Considers design changes necessary for blast furnaces. Diagrams, table, 8 ref.

7 Jan

PECINKA, D., inz.; BROZ, M.

Characteristics of the cyclindrical slot sorter CKD-Slany for raw coal sorting. Paliva 42 no.12:359-361 D '62.

1. Vedecko-vyzkumny uhelny ustav, Pokusne pradlo, Ostrava-Kuncicky.

SVEC, S., inz., ScC.; BROZ, M.

Modified circular slotting tools for chamfering tooth heads of evolvent gear wheels. Stroj vyr 11 no.5:237-242 My '63.

1. Katedra strojirenske technologie, Ceske vysoke uceni technicke, Praha (for Svec). 2. Zavody Jana Svermy, n.p. Brno (for Broz).

BROZ, Martin, Dr. HORN, Vitezslav, Dr. candidates, CUPAK, Milos, Dr. HUSAK, Stanislav, Dr.; College of Agricultural Sciences, Veterinary Medical Faculty, I. Medical Clinic (chairman: BROZ, Martin, Dr. cand.), Brno, and Jan Evengalista Purkyne University, Medical Faculty, Orthopedic Clinic (chairman: JANACEK, Milos, Dr. cand.), Brno, CSSR [original language versions not given].

"A Hitherto Unknown Affliction on the Legs of Young Pointers."  
Budapest, Magyar Allatorvosok Lapja, Vol 21, No 3, Mar 66, pages 120-122.

Abstract: [Authors' English summary modified] A previously unknown disease of the leg is described which occurred in young pointers during the past years, in the CSSR. The disease is characterized by pathological changes in the skin and bones of the affected legs. The most important changes were detected by histological examinations, in the acral parts of the bones and in the central nervous system. Analysis of the pedigree of the afflicted dogs revealed the hereditary character of the disease. The name hereditary neurotropic osteopathy is proposed by the authors. 6 Eastern European, 2 Western references.

1/1

- 65 -



JINDRAK, Karel; BROZ, Ota; PHAN TRINH; NGUYEN VAN TAN

Report on autopsy findings in the department of pathological anatomy in a Haiphong hospital (Vietnam Democratic Republic).  
Sborn. ved. prac. lek. fak. Karlov. Univ. (Hrad. Kral) 7 no.  
1/2:Suppl.:61-88 '64.

1. Ustav patologické anatomie (prednosta prof. DrSc. MUDr. A. Fingerland) a Patologicko-anatomicke oddeleni nemocnice cesko-slovensko-vietnamskeho pratelstvi v Hai-Phongu (VDR).

BROZ, O.

DECEASED  
1961

1962/5

SEE ILC

MEDICINE  
(Infections)

BROZ, R.

Technical schooling of workers in production. p. 149. (Textil, Praha, Vol. 9, no. 5, May 1954)

SO: Monthly list of East European Accessions EEAL), LC Vol 4, No. 6, June 1955, Uncl

BROZ, R.

BROZ, R. Occupational training in factories should be improved. p. 9.

Vol. 4, No. 1, Jan. 1954.

SKLAR A KERAMIK.

TECHNOLOGY

Praha, Czechoslovakia

So: East European Accessions, Vol. 5, No. 5, May 1956

BROZ, R.

Forms of technical education in production; technical minimum, p. 117,  
SKLAR A KERAMIK (Ministerstvo lehkeho prumyslu) Praha, Vol. 4, No. 5,  
May 1954

SOURCE: East European Accessions List (EEAL) Library of Congress,  
Vol. 45, No. 12, December 1955

EROZ, R.; BAVINEK, J.

Contribution to the problem of production management. p. 259

SKLAR A KERA TK (Ministrestvo lehkeho prumyslu), Vol. 6, No. 11, Nov. 1956  
Praha, Czechoslovakia

SOURCE: East European List (EEAL) Library of  
Congress, Vol. 6, No. 1, January 1957

BROZ, R.      BAVINKA, J.

The problem of management and planning in socialist industry. p.86 ( Kozarstvi, Vol.7, no. 4, Apr. 1957) Praha

SO: Monthly List of East European Accession (EEAL) LC, Vol. 6 no. 7, July 1957. Uncl.

BROZ, R.: PAVLNKA, J.

The problem of management and planning in socialist industry. p.98. (Sklar A Keramik.  
Praha. Vol. 7, no. 4, April 1957.)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 7, July 1957, Uncl.



BROZ, R. BACINKA, J.

Problems in the management and planning of socialist industry. p. 122.

(Textil. Vol. 12, no. 4, Apr. 1957. Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 10, October 1957. Uncl.

BROZ, R.

Use of mathematics in economics. p. 97.

TEXTIL. (Ministerstvo lehkeho prumyslu) Praha, Czechoslovakia. Vol. 14,  
no. 3, March 1959.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 11,  
November 1959.

Uncl.

BROZ, R.

Use of mathematics in economics. p. 138.

TEXTIL. (Ministerstvo lehkeho prumyslu) Praha, Czechoslovakia, Vol. 14,  
no. 4, April 1959.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 11,  
November 1959.

Uncl.

BROZ, R.

Use of mathematics in economica. III. p. 180.

TEXTIL. (Ministerstvo lehkeho prumyslu) Praha, Czechoslovakia. Vol. 14, no. 5, May 1959.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, no. 10, Oct. 1959. Uncl.

SIMON, Liboslav; PRIBYL, Alois; BROZ, Robert

Use of the gamma-gamma isotopic tracer in the geologic survey on the 39th floor of the Anna mine in the Brezove Hory ore mining district. Jaderna energie 10 no. 2:54-57 F '64.

1. Hornicky ustav, Ceskoslovenska akademie ved, Praha.

Broz, V.

# CZECH

"Moulding Units for Steelworks Ingot Moulds. V. Broz. (Strodenov, 1954, 2, (7), 201-204). [In Czech]. The design and manufacture of a steel-framed moulding unit, claimed to be cheaper and simpler than those mentioned in the literature, are described. The four walls consist of either four separately cast ribbed plates or two separately cast L-section portions, which are clamped together and rest on a heavy rectangular base. Much less sand was used for casting these than is required for conventional ingot moulds.—R. A. R.

n g

*Broz, V.*

# **C Z E C H**

Moulding Units for 100 to 200 Ton Ingot Moulds. V. Broz  
(*Střednostařil*, 1954, 2, (8), 226-230). [In Czech]. Details of  
design, mode of production, and materials employed for moulds  
for ingots of 130, 150, and 170 tons are given, and the data  
are compared with corresponding ones for similar ingot moulds  
of standard designs. A new type of suspension is described.

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BROZ, V.

Requirements for the design of trailers. II. p. 8. (ZEMEDEL'SKE STROJE,  
Vol. 2, No. 1, Jan 1957, Praha, Czechoslovakia)

SO: Monthly List of EastEuropean Accessions (EEAL) LC, Vol. 6, No. 12, Dec 1957. Uncl.



STĚDA, Adolf, MUDr.; BROŽ, Vilém, MUDr.

Remarks on roentgenology in the control of gastric cancer. Acta  
radiol.cancer bohem. 10 no.1:33-36 Mar 1956.

1. Rtg odd. OÚNZ Praha 9, Vysočany.  
(STOMACH, neoplasms  
control, role of x-ray diag.)

BROZ, V.

Tractor trailers.

p. 50 (Semadelske Stroje) Vol. 2, no. 3, Mar. 1957 Praha, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC, -Vol. 7, No. 1, Jan. 1958

BROZ, V.; JIRKA, M.

"Synthetic resins and some of their possible uses in agricultural engineering.  
I. (To be contd.)"

p. 58 (Zemelske Stroje, Vol. 3, no. 3, Mar. 1958, Praha, Czechoslovakia)

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, no. 9,  
September 1958

PROZ, V.

"An aid to the solution of tachymetric equations."

p.13 (Geodetický a Kartografický Obzor, Vol. 4, no. 3, Mar. 1958, Praha, Czechoslovakia)

Monthly Index of East European Accession (MEEA) 10, Vol. 7, No. 8, 1972

BR02-KA2 G A N O V I C , U .

COUNTRY CATEGORY	Yugoslavia	B-17
ABS. JOUR.	RZEHU, No. 16 1959, No.	53095
AUTHOR	Kranjčević, M., Džesin, V., and Breg-Kajmanović, V.	
INST.	Not given	
TITLE	The Determination of Sodium, Potassium, and Calcium Salts of Organic Acids and of Na-diphenylhydantoin in Mixtures Containing Luminal and Acta Pharmaceutica Jugoslavica, 8, No 117-125 (1958)	
ORIG. PUB.		
ABSTRACT	The authors have established the feasibility of using the column of the cation exchange resin, Amberlite MB3, (Caltex 223) for the determination of Na, K, and Ca salts of acidic, benzimidazole, salicylic, lactic, and gluconic acids. The cations of the organic salts are retained on the ion-exchange resin while the acids pass through the column and can be titrated. The determination of Na-diphenylhydantoin (I) in pure form or in mixtures with salts of barbituric acid	
CARD: 1/2		
ABSTRACT	is based on the fact that weak acids such as I, luminal, and prominal, are retained on the ion-exchange resin, whereas the I combined with Na passes through the column as a NaOH solution. Determinations in which the OH-form of Tserollit was used gave good results. The methods used in the analyses and a table of the results obtained are given.	
CARD:	2/2	From authors' summary

*Broz Kajganovic* Country : YUGOSLAVIA H17  
 Category : Chemical Technology. Pharmaceuticals. Vitamins. Antibiotics  
 Abs. Jour : Ref Zhur-Khimiy, No 14, 1959, No 50748  
 Author : Kranjcevic, M.; Broz-Kajganovic, V.  
 Institute : -  
 Title : Quantitative Determination of Codeine and Pyramidon After Fractional Distillation with \*  
 Orig Pub. : Croat. chem. acta, 1958, 30, No 1, 47-52  
 Abstract : The method of quantitative determination of codeine (I) and of pyramidon (II) is based on their reaction with the tetraphenylborate-preparation-"calignost" and on the reaction of the obtained complex with HgCl<sub>2</sub> in which splitting of HCl (acid) takes place:  

$$\text{RNH}_2 \cdot \text{HCl} + \text{Na}(\text{BPh}_4) \rightarrow \text{RNH}_2(\text{BPh}_4) + \text{NaCl};$$

$$\text{RNH}_2\text{H}(\text{BPh}_4) + 4\text{HgCl}_2 + \text{H}_2\text{O} \rightarrow \text{RNH}_2\text{HCl} + 4\text{PhHgCl} +$$
  
 \* "Calignost"  
 Card: 1/3  
 H-96

BROZA, V.

Possibility of using pillar-power plants in building hydraulic structures on the lower reaches of the Vitava and Labe Rivers. p. 376.

VODNI HOSPODARSTVI. (Ministerstvo energetiky a vodniho hospodarstvi a Vedecka technicka spolecnost pro vodni hospodarstvi) Praha, Czechoslovakia. No. 9, Sept. 1959.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 11, November 1959.

Uncl.

BROZA, Vojtech, inz.,; TYLS, Vladimír, inz.

Causes of the Malpasset dam disaster. Vodni hosp 13 no.1:23-27  
'63.

1. Stavební fakulta, České vysoké učení technické, Praha.



BROZA, Vojtech, inz.

New methods of controlling the outflow from rivers by reservoirs.  
Vodni hosp 13 no.1:34-35 '63.

BROZA, V., inz.

New methods of controlling river outflow by reservoirs. Vodni  
hosp 13 no.7:274-275 '63.

1. Katedra hydrotechniky.

PROZAK, F.

Regulation of terrains with a minimum of earthwork by means of a method of direct computation. p. 88.  
(Melyepitestudományi Szemle, Vol. 7, no. 1/3, Jan./Mar. 1957. Budapest, Hungary)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 9, Sept. 1957. Uncl.

BROZAK, F.

The limit height of capillary rise in capillary tubes of variable sections (with reference to multi-layer soil and other substances of capillary character). Acta techn Hung 40 no.3/4:413-421 '62.

1. Highway and Railroad Planning Office, Budapest.

BROZAK, Ferenc

Designing pavement extensions and divided passageways.  
Muszaki kozl MTA 32 no.1/4:231-238 '63.

1. Ut- Vasutervezo Vallalat, Budapest.

BROZAK, Ferenc

The limit value of capillary ascension on capillary tubes with variable sections. Muszaki kozl MTA 31 No.1/4:235-241 162.

1. Ut-Vasutervezo Vallalat, Budapest.

BROZBAR, T.

"Lucerne for pasture and seed." p. 13  
(Plon, Vol 4 No 4 Apr 53 Warszawa)

SO: Monthly List of East European Accessions, Vol 2 No 9 Library of Congress Sept 53 Uncl

CZECHOSLOVAKIA

BROZEK, G.; Department of Physiology. Czechoslovak Academy of Sciences  
(Fysiologicky ustav CSAV), Prague.

"Cortical Cell Membrane Potential Changes During Spreading Depression."

Prague, Ceskoslovenaka Fysiologie, Vol 14, No 5, Oct 1965; p 340-341.

Abstract: Micro-electrode determination of the changes in potential in the membrane of the cortical cells indicate that the process of spreading depression is accompanied by gradual depolarization of cortical elements. Graph. Paper presented at the 15th Physiology Days, Olomouc, 26 May 65.

1/1



L 34841-66 EWT(m)/EWP(t)/ETI LJP(c) JD

ACC NR: AP6020949

SOURCE CODE: CZ/0034/66/000/007/0512/0512

INVENTOR: Brozek, V. (Engineer); Prosek, F. (Engineer)

ORG: none

TITLE: High-purity aluminum production. CZ Pat. No. PV 3244-65

SOURCE: Hutnicke listy, no. 7, 1966, 512

TOPIC TAGS: aluminum, aluminum oxide, aluminum powder, carbon powder, ~~high purity~~  
~~aluminum, aluminum production,~~ HIGH PURITY METAL

ABSTRACT: This Author Certificate introduces a method of producing high-purity aluminum (up to 99.9999%) with crystals up to 2 mm in size. Aluminum-oxide and carbon powders are mixed in the stoichiometric ratio of 1:3, heated at 2200—2500C for 5—15 min in a graphite crucible, and compressed with a plunger at a pressure of 2—10 at. Wetting the cooled product with distilled water causes precipitation of aluminum crystals due to hydrolitic decomposition of aluminum carbide. The initial aluminum oxide and carbon should not contain more than 0.2% impurities. The powder particles should be not larger than 0.5 mm in size. [WW]

SUB CODE: 11/ SUBM DATE: 19May65/ ATD PRESS: 503/

Card

1/1 *fw*

FROZD, A.: STRAUSE, B.

Cleaning and conditioning of compressed air in foundries. p. 96

SLEVARENSTVI. (Ministersivo tezkeho strojirenstvi a Československa vedecka technicka spolecnost pro hutnictvi a slevarensivi). Praha, Czechoslovakia, Vol. 7, no. 3, Mar. 1959.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, no. 7, July 1959  
uncla.

POLAND

BOGDANIKOWA, Beata, SAGANEK, Barbara, and BROZD, Jadwiga;  
First Clinic of Internal Diseases (I Klinika Chorob Wew-  
netrznych), AM [Akademia Medyczna, Medical Academy] in Bia-  
lystok (Director: Docent, Dr. Beata BOGDANIKOWA)

"Effect of Treatment with Penicillin on Paraproteinemia."

Warsaw, Polski Tygodnik Lekarski, Vol 18, No 21, 20 May 63,  
pp 757-759

Abstract: [Authors' English summary] Authors administered  
crystalline penicillin G to a patient with beta<sub>2</sub> myeloma and  
studied blood protein fractions before, immediately after,  
and four weeks after treatment. Penicillin G, or rather  
the penicilamine formed, caused marked decrease of the patho-  
logic fraction. Administration had to be stopped because of  
patient's complaints of pains in the bones. Incubation of  
the patient's blood with penicillin in vitro did not cause  
any changes in the pathologic fraction. There are eight (8)  
references, all Western.

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P/036/61/000/008/001/002  
D001/D101

1.230 1573

AUTHORS: Pilarczyk, Józef, Docent, Engineer, and Brózda, Jerzy,  
Master of Engineering

TITLE: The influence of arc linear heat capacity on hardening  
of steels of various carbon content within the sphere  
of heat action

PERIODICAL: Przegląd spawalnictwa, no. 8, 1961, 201-204

TEXT: In this report the authors discuss the results of their investigations for ascertaining how arc linear heat capacity influences the mechanical properties of welded steel. This research was undertaken because of lack of "CTP" graphs applicable to steel made in Poland from which the structure and hardness of steels affected by heat can be estimated with sufficient accuracy. [Abstracter's note: The meaning of the "CTP" abbreviation is not revealed]. Mechanical properties of welds depend on the microstructure of metal exposed to heat during the process of welding, chemical composition of welded steel and the speed with which the metal cools down after welding.

Card 1/4